

structure of its cell-wall and other characters. MacGillivray has constituted the genus *Hiantopora* for its reception. It is one of the forms which is attached by tubular fibres.

[To be continued.]

XXI.—*On the Molluscan Genera Cyclostoma and Pomatias and the Crinoid Genus Comaster and Family Comatulidæ.*

By the Rev. Canon A. M. NORMAN.

IT is not my habit to write for controversy, but for science's sake, and I do not quite follow Mr. Newton when he says ('Annals,' June 1891, p. 522) that my statement that I thought he had "misapprehended the facts" betrays an "amount of prejudice." One thing is certain: either he has "misapprehended" the facts or I have done so. I merely gave the facts opposing his views in my last notes, hoping that this would suffice for my purpose, and not desiring to point out too closely what I considered to be errors of statement. It seems, however, now necessary to notice these. I will therefore examine his arguments in detail.

1. The opening words of his first paper ('Annals,' vol. vii. p. 345) were "Much confusion has existed since Lamarckian days regarding the Molluscan name of *Cyclostoma*." There was much confusion, I grant, in Lamarckian days; but it would be difficult to find any genus which has received more universal acceptance for ninety years than *Cyclostoma* (or *Cyclostomus*), with its type *C. elegans*. Confusion is only introduced when Mr. Newton proposes to substitute *Pomatias* for that time-honoured name.

2. Mr. Newton argues that Lamarck described *two different* genera which he named *Cyclostoma*.

My reply is, Lamarck (as I showed in the 'Annals' for May last) did not describe two different genera named *Cyclostoma*. His definition in 1799 was intended to cover every species which he or other authors subsequently placed in it; he gave *Turbo scalaris* as an example (*type*, as used in modern times, was not then understood). The subsequent limitations of the genus were as follows:—

1799. *Cyclostoma*, Lamarck. *Cyclostoma scalaris*.

1801 *. *Cyclostoma*, Lamarck (= Lamarck, 1799, partim).
Cyclostoma delphinus.

* In definition of genus Lamarck here adds the words "sans côtes longitudinales," to restrict the genus and exclude *Turbo scalaris* (= *Scalaria*).

1801. *Scalaria*, Lamarck (= *Cyclostoma*, Lamarck, 1799, partim). *Scalaria scalaris* (= *Cyclostoma scalaris*, 1799).
1801. *Cyclostoma*, Draparnaud (= *Cyclostoma*, Lamarck, 1799, partim). For *Nerita elegans* and all operculated inland Mollusca (except *Valvata*).
1803. *Cyclostoma*, Lamarck. Used by Lamarck in Draparnaud's restricted sense, and similarly by all subsequent writers.
1803. *Delphinula*, Lamarck (= *Cyclostoma*, Lamarck, 1799, and 1801 partim). For *Turbo delphinus*, L., = *Cyclostoma delphinus*, Lank.

Thus Lamarck in 1801 removed *Scalaria* out of his comprehensive genus, and in 1803 he acquiesced in Draparnaud's more restricted use of the name to inland Mollusca, in which the animal had "Tentacles oculés à la base externe, mufle proboscidiforme." In my previous notes (*ibid.* p. 447) I quoted Deshayes (in Lamarck), who explained the whole matter. I may also refer to Lamarck himself as accepting Draparnaud's restricted genus ('*Annales du Muséum*,' vol. iv. (1804) p. 108), also to Felix de Roissy in De Montfort's '*Hist. Nat. gén. et partic. des Mollusques*,' vol. v. (1805) pp. 290, 295, and 300, and De Montfort, '*Conchyliologie systématique*,' vol. ii. (1810) pp. 131, 287, and 295. These and subsequent authors to the present time have acquiesced in the restricted use of *Cyclostoma*, with *C. elegans* as type.

3. That Draparnaud, 1801, established another genus *Cyclostoma*. "No notice, however, is made by this author to the preoccupation of the generic name in 1799, and we can only infer that Draparnaud was ignorant of its existence."

Is it not a most extraordinary misapprehension that Draparnaud founded his *Cyclostoma* in ignorance of Lamarck's *Cyclostoma*? Why, Draparnaud was a brother Frenchman and Lamarck's conchological friend. It was in consequence of the recommendation of Lamarck, Cuvier, and Lacépède that Draparnaud's posthumous work on the Mollusca was published. Authors' names were not written after genera in those days, and therefore Draparnaud wrote "*Cyclostoma*," not "*Cyclostoma*, Lamarck."

4. Mr. Newton states that Studer established a genus *Pomatias* in 1789, and placed two species under it—*P. elegans*, = *Nerita elegans*, Müll.," with reference, and "*P. variegatus*, a new species;" and that Hartmann in 1821, "apparently *Ann. & Mag. N. Hist.* Ser. 6. Vol. viii. 12

ignorant of Studer's work of 1789, describes another *Pomatias*, and uses *Cyclostoma patulum* as the type."

Is not this another misapprehension? Did it not strike Mr. Newton as remarkable that Hartmann should have coined a name identical with that of Studer for the same genus, and is he aware that in the same year, 1821, Hartmann ('Neue Alp.' p. 214) actually named a species *P. Studeri*?

This statement in Mr. Newton's first paper is surpassed by the following sentence in his second paper:—"He [*i. e.* Norman] appears to be only anxious to demonstrate that we should follow the opinion most generally received by conchologists on this subject [*i. e.* in retaining *Cyclostoma*], instead of thinking it a matter for congratulation that the discovery of the Studerian genus now relieves us from the difficulties that have surrounded *Cyclostoma* for upwards of ninety years." This sentence appears to admit of no other interpretation than that, as Studer's genus *Pomatias* was according to Mr. Newton unknown to Hartmann, so, according to him, it has remained unknown to conchologists until 1891, when it was discovered by himself! I take down all the works from my library which I remember to contain *Pomatias* of Studer (as used for *P. variegatus* and allies) or of Hartmann, and give the following result of the ways in which this genus is quoted by those writers:—

"*Pomatias, Studer*" (*sic*): thus used in Adami, Cristofori and Jan, Charpentier, Stabile, Dupuy, Brusina, H. and A. Adams, S. P. Woodward, Kobelt, Clessin, Westerlund.

"*Pomatias, Hartmann*" (*sic*): Pini.

"*Pomatias, Hartmann non Studer*" (*sic*): Moquin-Tandon.

"*Pomatias (Studer 1789), Hartmann 1821*" (*sic*): Paul Fischer.

In this last reference Fischer puts the matter in a nutshell. The genus is the genus *Pomatias* of Studer, and he uses it in the restricted sense as employed by Hartmann. As I stated in my last notes, Hartmann, when he discovered *Pomatias*, Studer, acted very wisely in leaving the well-established *Cyclostoma* undisturbed and in applying *Pomatias* to the group for which he wished to find a name, and which included the second species mentioned by Studer. His action, moreover, was fully in accordance with the later Brit. Assoc. rules, and cannot lawfully be altered.

5. Mr. Newton maintains that *Cyclostoma*, Lamarek, must

be applied only to the genus which contains "*Turbo scalaris*;" nor will he be content to write *Cyclostoma*, Drap., because there was a previous *Cyclostoma*, Lamarek, though not in use. But he will not accept the only logical conclusion of his own argument, which, if granted to be true, would necessitate *Cyclostoma* superseding *Scalaria*. So he hunts for something earlier, and finds *Scala*, Klein; but then this is prebinomial, so will not do, and so he catches at a straw, and finds *Scala*, Humphrey, 'Museum Colonuanum,' 1797, two years antedating *Cyclostoma*, Lamarek, and which has been used by Mr. Dall. What is the history of this *Scala*, Humphrey? It seems scarcely to be believed that its authority rests upon the fact that a name, "anonymous and undescribed" (*Dall*), was inserted in a sale catalogue—nothing more than a pre-Linnean name applied to a shell for sale; and this is to be enough to give it post-Linnean authority! It may be expected after this that frequent reference will be made ninety years hence to "Stevens's" sale catalogues, for would there not be *Scala*, the precedent for their authoritative use*.

Lastly, Mr. Newton objects to the last part of Brit. Assoc. Rule 10, which allows the retention of a generic or specific name if no similar prior name is *in use*; and he refers to the American and French rules, which cannot claim to have been yet accepted generally even in the countries in which they originated, whereas the B. A. rules have the highest authority and the widest usage. That this Rule 10 is generally accepted on the continent has been proved by references in this very discussion, for I showed in my last notes that two of the leading zoologists of the continent, G. O. Sars and Schulze, observed it, and all the conchologists who write *Cyclostoma*, Drap.—and their name is legion—do the same. Mr. Newton asks whether I am aware that in my recent "Revision of British Mollusca," 1890, where I "place under review some seventy or eighty genera, about a dozen of them are preoccupied names †, and whether they remain so in my desire to carry out strictly to the letter my interpretation of the latter portion of Rule 10." I am always thankful to be put right when I am wrong; but I am not aware of any thing of the kind, and think that Mr. Newton is here again under a

* I cannot acquiesce in Mr. Dall's conclusions, but a very full statement of the case by him will be found in Bull. Soc. Comp. Zool. vol. xviii. (1889) p. 299.

† One name, *Cryptaxis*, I advisedly retained, though knowing it to be preoccupied and that it could not stand. I was unwilling to give a new generic name to a species which, when better known, will probably find a resting-place in an existing genus, and therefore for the present thought it best to leave it with Jeffreys's description and Jeffreys's name.

“misapprehension.” But granted, for the sake of argument, that his suggestion is true, he must see that he has put the strongest possible argument into my hands for the retention of the rule as it stands. Here is a rule-of-three sum: If he would supersede the use of twelve out of eighty names of genera because the names, though not in use, had been employed at an earlier date, what slaughter would he make among the, say, fifty thousand generic names contained in “Scudder”?

The laws of priority were drawn up that justice might be done to the earlier author, but were never intended to be applied for the purpose of upsetting groups of genera which, having the sanction of ninety years’ usage, have been employed, and can still be employed, without injustice to any one. “Possession is nine points of the law,” and the undisputed retention of property for twenty years constitutes a right of possession*. I would call attention to the “common sense” contained in the suggestive note in this month’s (July) ‘Annals’ by Prof. Jeffrey Bell, “A Test Case for the Law of Priority.” The overstrained pressure of every law becomes its abuse—“Summum jus summa injuria.”

Comaster and Comatulide.

I must add a few words in reply to Mr. F. A. Bather’s observations (‘Annals,’ vol. vii. p. 464) on my notes on Crinoidea.

Mr. Bather calls attention to the fact that the name I proposed for a genus to contain the doubtful *Comatula multi-radiata* of Goldfuss, “*Goldfussia*,” is preoccupied. Though not in the ‘Nomenclators,’ I find this is the case; but neither *Goldfussia* of Castelnau or of myself are likely to stand. I only gave a name to take away the opportunity of any one saying that “*Comaster* is in use for something else,” however wrongly so in use.

I shall reply to Mr. Bather so briefly that it will be necessary to refer to what has been in my and his notes written on the subject to understand my meaning.

Mr. Bather writes:—“(1) The priority of the name *Comaster* to *Actinometra* is no new discovery; but (2) the

* This day’s ‘Times’ (July 10) contains a curious case of one Joseph Jacobs, whose cocks and hens cannot, by all the authority of the London County Council, be turned off the “now greatly improved and beautified” Plumstead Common, because it was proved that these cocks and hens and their papas and mammas had taken their exercise there for the last fifty years.

diagnosis given by Agassiz was worthless; while (3) Canon Norman has not told us what we are to understand by *Comatula multiradiata*, Lamarek."

(1) Exactly, that was my argument. If it had been a new discovery no blame would have attached to those who, knowing *Comaster* to be earlier, use *Actinometra*.

(2) Worthless! It would be interesting to know what old genera are sufficiently described to satisfy Mr. Bather's requirements.

(3) There was no call for me to do so. Carpenter has taken great pains in the matter, and after examination of types considers that Lamarek included two species under *Comatula multiradiata*; both of these he places in *Actinometra*, and makes the earlier-described *Comaster*, Agassiz (of which this same *Comatula multiradiata* was the type*), a synonym of the later-described *Actinometra*—a course contrary to law and to justice.

Mr. Bather's next statement is:—

"When the time arrives for splitting up the assemblage of genera at present lumped together as Comatulidæ, the name Antedonidæ should certainly be applied to that family in which *Antedon* is placed. But while such different forms as *Thaumacrinus*, *Atelecrinus*, and *Promachocrinus* swell the motley crowd, the name Comatulidæ seems, from its very want of meaning, the best adapted to embrace them."

What does Mr. Bather imply by "want of meaning"? I must go to school again. Comatulidæ, I had supposed, meant Comatulidæ, and was = Comatulidæ, *i. e.* the genus *Comatula* and its allies; and as *Comatula* is a synonym of *Antedon*, therefore Comatulidæ = Antedonidæ = *Antedon* and its allies. But Mr. Bather puts me right and tells me practically that I must not believe any thing I see in print, and that when Carpenter ('Challenger' Report) gives and fully describes (p. 6) the "Family Comatulidæ," he is doing nothing of the kind, even though the family is headed thus—"Family Comatulidæ, d'Orbigny, 1852; *emend.* P. H. Carpenter, 1888," and that I must not understand him as meaning what he says, when, after referring to the three older genera of the family, Carpenter writes:—"Three new genera have been established by myself for new types of recent *Comatule*, viz. *Atelecrinus*, *Promachocrinus*, and *Thaumacrinus*; and these six are *all that could strictly be included* † in the family Comatulidæ until quite recently."

* In the 'Annals,' 1891, vol. vii. p. 387, last line but one from bottom, I see I have made an error:—For "Group 3. typica" read "Group 7. Fimbriata."

† The italics are mine.